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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Paul Tubel, et al.

Serial No.: 09/408,045

Confirmation No.: 3520

Filed: September 29, 1999

**For: METHODS AND APPARATUS
FOR MONITORING AND
CONTROLLING OIL AND GAS
PRODUCTION WELLS FROM
A REMOTE LOCATION**

Group Art Unit: 2635

Examiner: Albert Kang Wong

Customer No. 36735

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<u>William B. Patterson</u>	
Typed Name	Signature

Dear Sir:

SUPPLEMENTAL RESPONSE UNDER 37 C.F.R. § 1.116 TO THE FINAL OFFICE ACTION DATED JUNE 10, 2004

In response to the Final Office Action dated June 10, 2004 and an Advisory Action dated August 25, 2004, having a shortened statutory period for response set to expire on September 10, 2004, please enter this response and reconsider the claims pending in the application for reasons discussed below. Although Applicants believe that no additional fees are due in connection with this response, the Commissioner is hereby authorized to charge counsel's Deposit Account No. 20-0782/WEAT/0003.Y1/WBP for any fees, including extension of time fees or excess claim fees, required to make this response timely and acceptable to the Office.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper. **Remarks/Arguments** begin on page 8 of this paper.

IN THE CLAIMS:

1. (Previously Presented) An apparatus for downhole production or injection wells, comprising:
 - a) one or more downhole production or injection wells; and
 - b) a control system comprising:
 - i) one or more surface control and data acquisition systems;
 - ii) one or more sensors disposed in communication with the surface control and data acquisition systems;
 - iii) one or more downhole devices disposed in communication with the surface control and data acquisition systems; and
 - iv) one or more remote controllers disposed in communication through a server with the surface control and data acquisition systems, wherein the one or more remote controllers may reprogram a processor of the one or more surface control and data acquisition systems.
2. (Original) The apparatus of claim 1 wherein the downhole devices comprise one or more devices selected from the group of smart shunt screens, sliding sleeves, chemical injection devices, circulating valves, gas lift valves, water injection valves, smart screens chokes, diverters, flappers, safety valves, and packers.
3. (Original) The apparatus of claim 1 wherein the downhole devices are disposed in communication with one or more components of the one or more downhole production or injection wells.
4. (Original) The apparatus of claim 1 wherein the downhole devices are disposed in communication with one or more sensors of the control system.
5. (Original) The apparatus of claim 1 wherein the one or more sensors comprise one or more permanent downhole sensors.

6. (Original) The apparatus of claim 1 wherein the one or more sensors comprise one or more retrievable sensors.
7. (Original) The apparatus of claim 1 wherein the control system comprises an electric control system.
8. (Original) The apparatus of claim 1 wherein the downhole production well comprises an artificial lift system disposed in cooperation with the downhole well.
9. (Original) The apparatus of claim 8 wherein the artificial lift system includes a programmable automation control system.
10. (Original) The apparatus of claim 8 wherein the artificial lift system includes one or more surface sensors disposed to monitor operation of the artificial lift system.
11. (Original) The apparatus of claim 8 wherein the artificial lift system includes one or more sub-surface sensors disposed to monitor operation of the artificial lift system.
12. (Original) The apparatus of claim 8 wherein the control system comprises an electric control system.
13. (Previously Presented) The apparatus of claim 1, further comprising:
a retrievable pump system disposed in cooperation with the downhole production or injection well.
14. (Original) The apparatus of claim 13 wherein the retrievable pump system comprises sensors.

15. (Original) The apparatus of claim 13 wherein the retrievable pump system is deployed by a component selected from the group consisting of coil tubing, electric line, hydraulic pumping, and wire line.
16. (Original) The apparatus of claim 15 wherein the retrievable pump system is connected to one or more communication control member selected from the group of fiber optic lines, fluid pumping lines, electric lines and wireless components.
17. (Original) The apparatus of claim 13 wherein the retrievable pump system comprises one or more pumps selected from the group consisting of an electric submersible pump, a linear motor drive pump, an impeller driven pump, a progressive cavity pump, a gas lift, a rod pump and a jet pump.
18. (Original) The apparatus of claim 17 wherein the electric submersible pump is disposed in electrical connection with one or more wet connects disposed inside a production tubing of the downhole production well.
19. (Original) The apparatus of claim 17 wherein the electric submersible pump is disposed in electrical connection with an inductive coupler connected to the control system.
20. (Previously Presented) The apparatus of claim 1 wherein the control system further comprises:
a communication device disposed between the server and the one or more surface control and data acquisition systems.
21. (Original) The apparatus of claim 20 wherein the communication device comprises one or more devices selected from the group of a telephone system, a satellite system, an internet system, and a radio system.

22. (Previously Presented) The apparatus of claim 1 wherein the remote controller comprises a computer having an internet access.

23. (Previously Presented) The apparatus of claim 22 wherein the control system further comprises:

a satellite system adapted to link signals between the server and the surface control and data acquisition system.

24. (Previously Presented) An apparatus for downhole production or injection, comprising:

- a) one or more completed electrically controlled wells;
- b) one or more artificial lift systems incorporated in the one or more completed wells; and
- c) a control system comprising:
 - i) one or more surface control and data acquisition systems;
 - ii) one or more formation sensors disposed in communication with the surface control and data acquisition systems;
 - iii) one or more devices of the artificial lift system disposed in communication with the surface control and data acquisition systems; and
 - iv) one or more remote controllers disposed in communication through a server with the surface control and data acquisition system, wherein the one or more remote controllers may reprogram a processor of the one or more surface control and data acquisition systems.

25. (Original) The apparatus of claim 24 wherein the one or more artificial lift systems comprises one or more surface sensors and one or more sub-surface sensors.

26. (Original) The apparatus of claim 24 wherein the one or more artificial lift systems comprise one or more programmable automation control systems.

27. (Previously Presented) The apparatus of claim 24, further comprising:

a retrievable pump system disposed in cooperation with the electrically controlled well.

28. (Original) The apparatus of claim 27 wherein the retrievable pump system is deployed by a component selected from the group consisting of coil tubing, electric wire line, hydraulic pumping, and wire line.

29. (Original) The apparatus of claim 28 wherein the retrievable pump system is connected to one or more control lines selected from the group consisting of fiber optic lines, fluid pumping lines, and electric lines.

30. (Original) The apparatus of claim 27 wherein the retrievable pump system comprises one or more pumps selected from the group consisting of an electric submersible pump, a linear motor drive pump, an impeller driven pump, a progressive cavity pump, a gas lift, a rod pump and a jet pump.

31. (Original) The apparatus of claim 30 wherein the retrievable pump system is disposed in electrical connection with one or more wet connects disposed inside a production tubing of the downhole production well.

32. (Previously Presented) The apparatus of claim 24, further comprising:
a communication device disposed between the server and the one or more surface control and data acquisition systems, wherein the communication device comprises one or more devices selected from the group of a telephone system, a satellite system, an internet system, and a radio system.

33. (Previously Presented) The apparatus of claim 24 wherein the remote controller comprises a computer having an internet access.

34. (Previously Presented) The apparatus of claim 33 further comprising:

a satellite system adapted to link signals between the server and the one or more surface control and data acquisition systems.

35-70. (Cancelled)

71. (Previously Presented) The apparatus of claim 2, wherein the smart shunt screen comprises:

a rotatable tubular member having a plurality of inlet ports; and
a fixed tubular member having a corresponding number of inlet ports as the rotatable tubular portion.

72. (Previously Presented) The apparatus of claim 71, wherein the rotatable tubular member and the fixed tubular member are coaxially disposed relative to each other.

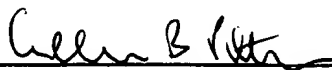
73. (Previously Presented) The apparatus of claim 72, wherein inlet ports of the rotatable tubular member and the fixed tubular member are aligned when the smart shunt screen is in an open position.

REMARKS

In the Advisory Action dated August 25, 2004, the Examiner stated that claims 1-34 and 71-73 would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claims. Accordingly, Applicants have cancelled the non-allowable claims and respectfully request that claims 1-34 and 71-73 be allowed.

Entry and consideration of this Supplemental Response is respectfully requested.

Respectfully submitted,



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